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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,945	04/24/2001	JC Ferguson	CBM-001.02	5616

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EXAMINER	
PHILLIPS, HASSAN A	
ART UNIT	**PAPER NUMBER**
2151	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/840,945	FERGUSON ET AL.	
	Examiner	Art Unit	
	Hassan Phillips	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/11/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The Information Disclosure Statements (IDS) filed on December 11, 2003, and June 4, 2001, have been received and considered by the Examiner.

Drawings

1. The drawings filed on January 15, 2002, have been received and considered by the Examiner.

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 26 recites the limitation "the data request" in the last two lines of the claim. There is insufficient antecedent basis for this limitation in the claim. In order for the Examiner to advance prosecution of the application for patent the Examiner has interpreted "the data request" to be "a data request".

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-17, 35-37, are rejected under 35 U.S.C. 102(b) as being anticipated by Sumimoto, U.S. Patent 5,522,070.

3. In considering claim 1, Sumimoto teaches a method for scheduling data flows among processors, comprising:

a) Receiving a request for processing, (col. 6, lines 48-55);

b) Identifying a processor group to process the request, the processor group including at least one processor, (col. 6, lines 1-4);

c) Consulting a flow schedule associated with the identified processor group, and, transferring the request to at least one processor in the identified processor group based on the associated flow schedule, (col. 10, lines 9-13).

4. In considering claim 3, it is inherent in the teachings of Sumimoto that consulting a flow schedule comprises consulting a flow schedule vector. See col. 10, lines 9-13.

5. In considering claim 4, Sumimoto further teaches transferring the request based on sequentially moving among processors in the consulted flow schedule. See col. 10, lines 16-34.

6. In considering claim 5, it is inherent in the teachings of Sumimoto that sequentially moving among processors includes returning to the beginning of the consulted flow schedule upon reaching the end of the consulted flow schedule. See col. 10, lines 16-34.

7. In considering claim 6, Sumimoto teaches a flow schedule based on intrinsic data from the identified processor group. See col. 10, lines 9-13.

8. In considering claim 7, Sumimoto teaches a flow schedule based on at least one of CPU utilization, memory utilization, packet loss, and queue length or buffer occupation of the processors in the identified processor group. See col. 10, lines 9-13.

9. In considering claim 8, Sumimoto teaches receiving the intrinsic data from processors in the identified processor group. See col. 10, lines 9-13.

10. In considering claim 9, Sumimoto teaches receiving data from processors at specified intervals. See col. 12, lines 7-11.

11. In considering claim 10, it is inherent in the teachings of Sumimoto that intrinsic data is filtered in computing the flow schedule. See col. 10, lines 9-13.

12. In considering claim 11, it is inherent in the teachings of Sumimoto that the processors in a processor group include at least one similar application. See col. 6, lines 48-55.

13. In considering claim 12, it is inherent in the teachings of Sumimoto that processors in a processor group can be identically configured. See col. 6, lines 48-55.

14. In considering claim 13, Sumimoto teaches a flow schedule for the processor groups. See col. 10, lines 9-13.

15. In considering claim 14, it is inherent in the teachings of Sumimoto that the processors in a processor group include at least one different application. See col. 6, lines 48-55.

16. In considering claim 15, Sumimoto further teaches providing an initial flow schedule. See col. 10, lines 16-23.

17. In considering claim 16, it is inherent in the teachings of Sumimoto that identifying a processor group includes identifying an application associated with the request. See col. 6, lines 1-4.

18. In considering claim 17, Sumimoto teaches consulting a hash table when identifying a processor group. See col. 10, lines 9-13.

19. In considering claim 35, Sumimoto teaches a method for scheduling data flows among at least two processors, comprising:

a) Computing a flow schedule base on historic performance data from the at least two processors, (col. 10, lines 9-34).

20. In considering claim 36, Sumimoto teaches providing data for at least one of CPU utilization, memory utilization, packet loss, and queue length or buffer occupation of the processors in the identified processor group. See col. 10, lines 9-13.

21. In considering claim 37, Sumimoto teaches providing presently existing data for at least one of CPU utilization, memory utilization, packet loss, and queue length or buffer occupation of the processors in the identified processor group see col. 10, lines 9-13.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 2, 18-34, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sumimoto in view of Colby et al. (hereinafter Colby), U.S. Patent 6,006,264, (supplied by Applicant).

3. In considering claim 2, although the method taught by Sumimoto shows substantial features of the claimed invention, if fails to teach:

a) In receiving a request for processing, including receiving a data flow from a network.

Nevertheless, in a similar field of endeavor, Colby teaches a method and system for directing a flow between a client and a server comprising:

a) In receiving a request for processing, including receiving a data flow from a network, (col. 2, lines 48-53).

Thus given the teachings of Colby, it would have been apparent to one of ordinary skill in the art to modify the teachings of Sumimoto with Colby to show receiving a request for processing including receiving a data flow from a network. This would enhance the method taught by Sumimoto by allowing multiple users to take advantage of the method by sending their requests and data flows over a network. This also would simplify the functionality of the client devices from which the request would be sent. See Colby, col. 3, lines 29-67, and col. 4, lines 1-5.

4. In considering claim 18, Sumimoto teaches an apparatus to process a data flow on a network, comprising:

a) At least one flow processor module having at least one processor, at least one network processor module having at least one processor, and instructions to cause the at least one processor to forward the data flow to at least one flow processor module capable of processing the data flow, (col. 6, lines 1-4); and,

b) At least one control processor module in communication with the at least one flow processor module, and having at least one processor and instructions for causing the at least one processor to receive intrinsic data from the at least one flow processor module, (col. 11, lines 20-36).

Although the method taught by Sumimoto shows substantial features of the claimed invention, if fails to teach:

c) Receiving the data flow from the network.

Nevertheless, in a similar field of endeavor, Colby teaches a method and system for directing a flow between a client and a server comprising:

c) Receiving a data flow from a network, (col. 2, lines 48-53).

Thus given the teachings of Colby, it would have been apparent to one of ordinary skill in the art to modify the teachings of Sumimoto with Colby to show an interface receiving the data flow from the network. This would enhance the method taught by Sumimoto by allowing multiple users to take advantage of the method by sending their requests and data flows over a network. This also would simplify the functionality of the client devices from which the request would be sent. See Colby, col. 3, lines 29-67, and col. 4, lines 1-5.

5. In considering claim 19, it is implicit in the teachings of Sumimoto that at least one flow processor module includes at least one memory to store at least one application. See col. 6, lines 48-55.

6. In considering claim 20, Sumimoto teaches the at least one control processor module in communication with the at least one network processor module. See col. 11, lines 20-36.

7. In considering claim 21, Sumimoto teaches the at least one control processor module including instructions for causing the at least one processor to compute a flow schedule for the at least one applications processor group. See col. 11, lines 20-36.

8. In considering claim 22, Sumimoto teaches the intrinsic data including at least one of CPU utilization, memory utilization, packet loss, and queue length or buffer occupation. See col. 10, lines 9-13.

9. In considering claim 23, it is implicit in the teachings of Sumimoto that the control processor modules include at least one filtering module. See col. 11, lines 20-36.

10. In considering claim 24, Sumimoto teaches the network processor modules including at least one flow schedule for directing flows to the flow processor modules. See col. 10, lines 9-13.

11. In considering claim 25, Sumimoto further teaches the network processor modules including at least one initial flow schedule. See col. 10, lines 16-23.

12. In considering claim 26, Sumimoto teaches the network processor modules further including a hash table to associate a data request with a flow schedule. See col. 10, lines 9-13.

13. In considering claim 27, it is implicit in the teachings of Sumimoto that the flow schedule further includes a list of flow processor modules. See col. 10, lines 16-23.

14. In considering claim 28, Sumimoto teaches an apparatus for scheduling data flows on a network, comprising:

a) A front-end processor to receive data flows, and at least one applications processor group to process the flows, (col. 6, lines 1-4);

b) At least one flow schedule associated with the at least one applications processor group, (col. 10, lines 9-13); and,

c) Instructions to cause the front-end processor to identify at least one applications processor group to process the flow, select at least one processor within the identified processor group, and transfer the flow to the selected processor, (col. 10, lines 16-24).

Although the method taught by Sumimoto shows substantial features of the claimed invention, if fails to teach:

d) Receiving the data flow from the network.

Nevertheless, in a similar field of endeavor, Colby teaches a method and system for directing a flow between a client and a server comprising:

d) Receiving a data flow from a network, (col. 2, lines 48-53).

Thus given the teachings of Colby, it would have been apparent to one of ordinary skill in the art to modify the teachings of Sumimoto with Colby to show an interface receiving the data flow from the network. This would enhance the method taught by Sumimoto by allowing multiple users to take advantage of the method by sending their requests and data flows over a network. This also would simplify the functionality of the client devices from which the request would be sent. See Colby, col. 3, lines 29-67, and col. 4, lines 1-5.

15. In considering claim 29, it is implicit in the teachings of Sumimoto that the at least one flow schedule includes at least one flow vector. See col. 10, lines 9-13.

16. In considering claim 30, Sumimoto teaches at least one control processor to receive data from the at least one applications processor group. See col. 11, lines 20-36.

17. In considering claim 31, it is implicit in the teachings of Sumimoto that the control processor includes at least one filter. See col. 11, lines 20-36.

18. In considering claim 32, it is implicit in the teachings of Sumimoto that the applications processor group includes at least one processor. See col. 6, lines 1-4.

19. In considering claim 33, it is implicit in the teachings of Sumimoto that the at least one processor includes at least one memory to store applications. See col. 6, lines 1-4.

20. In considering claim 34, Sumimoto teaches the front-end processor including a hash table for associating a data flow with at least one applications processor group. See col. 10, lines 9-13.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sumimoto, U.S. Patent 5,522,070 discloses a method and apparatus for scheduling flows to be processed over a network.

Colby et al., U.S. Patent 6,006,264 discloses a method and system for directing a flow between a client and a server.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is (703) 305-8760. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (703) 308-6687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ZARNI MAUNG
PRIMARY EXAMINER